Shedding light on automation

'It doesn't mean dark factories manned by robots'

"At Gould, factory automation means putting the electronic tools of management and control into the hands of people responsible for all levels of production," says Jack A. Blaeser, executive vice president, Electronic Systems Business Section, Gould Inc.

"It does not mean dark factories manned by robots and run by computers without any human intervention. Nor do we think it ever will."

Quite to the contrary, effective factory automation makes the people responsible for production at all levels an integral part of the automated process, Blaeser says.

"It helps them better understand both the operation of individual machines and the complex relationships within the overall production process. It permits those responsible for production strategies to examine their impact before they are implemented," he adds. "And, it facilitates control over the elements of production at all levels."

Effective factory automation is based on information — timely, accurate information that is the basis for making the right decisions, using the right tools, and building the right products with a minimum of inventory, waste and downtime, Blaeser emphasizes.

"Our goal at Gould is to provide electronic tools to make the flow of information within a manufacturing facility as efficient as the flow of the production process it reflects and controls," Blaeser points out. "In so doing, we believe the productivity of that entire facility can be increased in the same way mechanical automation increases the productivity of its individual operations."

Stripped of technical detail, the requirements for making it happen are quite simple. One, you must be able to tell the appropriate people what's happening. Two, they must be able to examine the consequences of their decisions. And, three, they must be able to implement the changes they decide upon.

It doesn't get complicated until you try to do it, he states. "What's happening," for example, means different things to different people. Plant managers and foremen both may be interested in production rates, but the scale of their interest is likely to be quite different.

Examining the consequences of a decision may mean confirming that a switch has been turned "on," or it may mean simulating the response of the entire facility to various production strategies.

Implementing a change could require adjustment of one control, or re-configuration of an entire production line to make an alternate part.

"An effective factory automation system must address all of those requirements, and the thousands of others found in the manufacturing environment," Blaeser says. "It must facilitate entry of computer generated designs into the production flow, support the needs of manufacturing requirements planning, provide the data base for machine and facility optimization programs, keep maintenance, chart machine trends, and control inventory."

At the other end of the spectrum, it must provide programmable control capabilities for all the individual machines on the production floor, capabilities that must include controllers, servos, sensors, and even limit switches, motor controls, and protective devices, he adds.

In short, a factory automation system is the central information/communication/control network that supports and implements all of the decisions that ultimately determine manufacturing productivity and product quality, while properly managing capacity and inventory, the Gould executive states.

The possibilities of such a system are staggering. "Consider that our very best transfer lines typically run little more than half the time; that it is not unusual in our best plants to find machines standing idle waiting for parts, while in another area parts pile up waiting for machine time; or that we usually do not know what a particular production strategy will really accomplish until it is put into

John A. Blaeser: "Make no mistake."

operation," Blaeser says.

None of these problems are reflections of bad management. They are all results of bad information, no information, or the inability to implement decisions immediately, he adds. "If we could predict when a transfer line was going to stop, we would have the right people waiting to fix it. If we knew what all the machines on the floor were doing, and where all the parts were, we would match capacity to requirements more efficiently. If we could simulate the impact of a production strategy, we would select the best alternative before we were committed," Blaeser says.

"Make no mistake, success or failure still will be determined by the quality of the tools we put in the hands of people who make things happen. But in today's world, those tools must be electronic," he says.

"Obviously the computer is the most visible element and frequently receives the most attention," Blaeser adds. "In practice, however, it is the ability to supply and balance all three elements that makes the difference between just talking about factory automation and actually making it work. Translating potential benefits into real productivity gains requires a thorough understanding of all three disciplines and their relationships within the unique factory environment. Here, they are not, in fact, distinct functions but steps in a continuous process that begins and ends on the production floor."

There machine controls constantly gather information and pass it through communication networks to displays, computers, and other devices which present it to appropriate personnel, Blaeser points out. People make decisions based on that information and generate commands that are passed back through the communication network to the machine controls for implementation.

"The changes that flow from those decisions become new information, and the process is repeated continuously. Add the ability to input information and implement decisions made outside the loop just described, and you have a working model of an effective factory automation system," he adds.

Once again, it doesn't get complicated until you try to do it. "Take the case of a typical manufacturing plant. A system of the type just described would contain one or more computers, several different terminals and displays, at least one communication network and associated control system, dozens of programmable controllers, hundreds of servo motors, and thousands of switches, motor controls, overload protectors, and similar devices.

"Chances are very good that the machine control portion is already in place, and that none of its components were selected on the basis of compatibility with a higher level communication and computer system. In fact, they probably can't even communicate with each other.

"Sometimes the best answer to this problem is simply to replace the whole machine control portion with new components that are compatible with each other and the overall system. Gould has consciously designed products with the ability to do just that, with offerings for every aspect of a comprehensive factory automation system," Blaeser emphasizes.

Most factory automation systems will be installed in existing facilities where a variety of equipment is already in place. The challenge will be to integrate that equipment into a workable system. It's been Gould's experience that the best way of meeting the challenge is to have a variety of solutions available for each aspect of the overall problem, he says. □

Coil coaters shake slump

Bright signs for pre-coated steel and aluminum

The coil coating industry weathered the recession in 1982 along with its major customer industries. Now coil coating industry leaders see several bright signs as pre-coated steel and aluminum held onto their market shares or scored gains in key end-use markets.

The National Coil Coaters Assn. (NCCA) says total estimated North American shipments of pre-coated steel and aluminum in 1982 slipped 8.2 percent to just under 3.1 million tons compared to nearly 3.4 million tons in 1981. Coil coated steel shipments are estimated at 2,477 million tons, down 8.3 percent from 1981 levels.

Estimated coil coated aluminum deliveries amounted to 616,000 tons of metal in 1982, a decrease of 7.9 percent from the previous year.

Total 1982 shipments of 3,093 million tons of coated coil represent an increase of more than 666 percent from the 464,000 tons shipped in 1962, the year NCCA began keeping statistics. And coil coating's peak year of 1978, when 4,056 million tons were shipped, registered an 874 percent increase over the 1962 totals.

NCCA compiles these estimates based on actual shipments reported to the association by both member and non-member companies. Figures are calculated for North American markets only.

NCCA member executives agreed that 1982 was a year of recession for the coil coating industry. Major customer industries such as appliances, commercial and residential construction and heavy appliances remained at depressed operating levels throughout much of the year.

Nevertheless, pre-coated steel and aluminum deliveries to furniture and the vital transportation industry held virtually even in 1982. Transportation steel tonnage totaled 898,532 tons in 1982 and 907,659 tons in 1981. Transportation aluminum tonnage was 25,470 tons in 1982 and 27,669 in 1981.

Transportation remained the largest single market for coated coil in 1982. Shipments of steel pre-coated with weldable zinc-rich primers for passenger automobiles, the largest tonnage category within the industry, increased to 717,883 tons in 1982 from 668,750 in 1981.

NCCA members say more car makers are specifying corrosion-resistant, coil coated steel for more parts on more models than previously. This led to increased tonnage in 1982 despite low car-build figures. □

ESTIMATE OF TOTAL SHIPMENTS
PRE-PAINTED OR PRE-COATED METAL COIL
BY COATERS LOCATED IN U. S., CANADA & MEXICO

(In thousands of tons)

Year	Aluminum	Percent Change	Steel	Percent Change	Total	Percent Change
1973	829	+13.6%	1,863	+29.4%	2,692	+24.1%
1974	707	−14.7%	2,087	+12.0%	2,794	+ 3.8%
1975	580	−18.0%	1,434	−31.3%	2,014	−27.9%
1976	720	+24.1%	2,407	+67.9%	3,127	+54.9%
1977	782	+ 8.6%	2,944	+22.3%	3,726	+19.2%
1978	841	+ 7.5%	3,215	+ 9.2%	4,056	+ 8.9%
1979	800	− 4.9%	3,141	− 2.3%	3,941	− 2.8%
1980	702	−12.2%	2,535	−19.3%	3,237	−17.9%
1981	668	− 4.9%	2,701	+ 6.5%	3,369	+ 4.1%
1982	616	− 7.9%	2,477	− 8.3%	3,093	− 8.2%

Source: National Coil Coaters Assn.

Forging behind

Selective casting

• Final revised figures of 1982 sales of open die forgings produced by independent forge shops show a total industry volume of $771 million, down 27 percent from $1,057 million in 1981, according to the Forging Industry Assn. Bookings of forging orders during 1982 amounted to $634 million, 46 percent below $1,178 million in 1981.

• Total industry volume for sales of impression die forgings produced by independent forge shops in 1982 were $2,336 million, down 19 percent from $2,883 million in 1981, says the Forging Industry Assn. Bookings of forging orders in 1982 totaled $1,361 million, down 45 percent from $2,478 million in 1981.

• Selective Electronics Inc., Valdese, N.C., receives the first five North American orders in the steel, foundry and aluminum industries for Optocator non-contact measuring systems. The five systems will be used for measuring the level of molten steel in a casting operation, inspecting large diameter hot pipe and tube, measuring thickness of hot slab in a reversing roughing mill, measuring dimensions of forged railroad wheels and measuring waves in coated strip.

GM Australia faces tough times

'Recovery Plan' leak to media adds to woes

By Pedr Davis
Staff Correspondent

Things have never looked more bleak for General Motors Holden's Ltd. (GMH), Australia's largest car company. Not only did it slip behind Ford Motor Co. Australia Ltd. for the first time in 1982 but now its sales have fallen behind Toyota this year.

To make matters worse, someone filched a top secret GMH "Recovery Plan" document and leaked it to the media. The document received national coverage on television and in the press, baring GMH's inmost secrets in a humiliating and devastating manner.

Among other sensational revelations, the document showed GMH was actively considering merging with Japanese companies Toyota or Nissan in Australia and that its huge losses are likely to continue for some years.

Top-level sources in the organization indicate the scenario is not one of mergers, nor will any of the existing five car manufacturers withdraw from the Australian market.

Despite the infamous document, acknowledged by GMH as authentic, a merger between GMH and a Japanese car company is also unlikely. "We have never talked merger with Nissan, Toyota or anyone else," says Ivan Deveson, GMH director. "When a company is in deep trouble, as we are, it canvasses all possible options. That stolen document—and I emphasize that it was stolen—was the first draft of a possible business plan which had been prepared for (managing director) Chuck Chapman. It was one of several such plans drawn up for discussion. This particular one never reached the discussion stage.

"The possibility of a merger was one of several options open to us. When you are desperate you look at everything. But a merger is not an option we are taking, nor is it one which has been discussed by us outside our own company," Deveson says.

Rob McInery, another member of the GMH task force currently formulating a business recovery plan, confirms that a merger has never been discussed outside GMH headquarters and there are no plans for one in the foreseeable future.

Apart from its strong dealer network and spare parts profitability, GMH is not an attractive marriage proposition. Its problems are far too great for an outside firm to voluntarily share.

The Holden's organization, which grew large during the 1950s and 1960s, is too unwieldly to meet the challenge of the 1980s. Slimming down will be painful and expensive. Even after recent retrenchments, GMH employs 43 percent of Australia's total car making personnel, but its market share is 22 percent.

GMH has about 15,500 on its payroll compared with about 3,500 each for Toyota, Nissan and Mitsubishi. Shedding the GMH fat and streamlining the organization for profitability is a task none of the Japanese companies wants.

GMH has already learned through closing its Pagewood plant that the cost of pruning an unwanted factory extends far beyond the millions of dollars needed in severance pay. Executives freely admit that the ill-will created by the Pagewood closing cost it several thousand new-car customers.

The smallest of the local firms, Mitsubishi, spent only $85 million in purchasing the Chrysler Corp.'s facilities; it has 11 percent of the vehicle market. Toyota, which now outsells GMH, has a $300 million commitment and GMH has $800 million.

The three Japanese firms are set for the tight conditions of the 1980s with trim and highly flexible organizations. Toyota and Nissan were fortunate enough to come into Australia with a clean slate. They were able to design and build manufacturing facilities suitable for the 1980s, whereas GMH has been forced to continue with dated plants and equipment.

The Japanese firms astutely introduced the concept of having a relatively small staff to handle key operations and using subcontractors for other work. In this way they can react to a sales downturn by laying off a handful of their own people.

GMH has built an organization that manufactures most of its cars inhouse, and its huge work force has became a liability as sales fall. "During the 1960s we made a rod to beat our own backs in the 1980s," Deveson admits.

About the pilfered "Recovery Plan," Deveson says, "That document was never sighted by our overseas subsidiaries or parent company until after it had been stolen. As yet we do not have a final business plan. When we do, it will be presented to Detroit for approval."

Director Deveson: 'A merger is not an option we are taking.'

He emphasizes: "The industry must cooperate on the inside and compete on the outside." He did not say so, but this phrase represents GMH's main route to recovery.

GMH buys millions of dollars worth of shock absorbers annually from Mitsubishi in Adelaide. It sells sheet metal stampings, castings and engines to Toyota, Melbourne. GMH is also trying to sell castings to Ford, Geelong. This interchange of components is the tip of an iceberg which will soon be as big as the industry itself.

For optimum efficiency and utilization of investment, a car maker should produce 250,000 cars a year per plant, a factor known in the industry as a "module." In Australia five companies are producing a total of just over 300,000 cars a year. "Five into 1.2 modules is dumb," says Deveson.

• Here is the scenario that seems to be shaping up:

There will be no mergers between the five existing car makes in Australia.

GMH will scale down operations to manufacture more parts from fewer facilities.

No one will take up the federal government's offer to withdraw and receive favorable treatment on import quotas. The existing five have too much commitment and investment. More importantly, they believe the long term potential is excellent.

The number of individual models built in Australia will diminish. The five makers currently build 16 basically different vehicles, not including station wagons and other variations. This number could fall to 10.

There will be a rapid and dramatic increase in the use of common components with each maker becoming a specialist in a particular area.

Some of the five will form joint manufacturing companies to export components, especially those involving aluminum and plastic technology.

In short, each manufacturer will become an assembler of motor vehicles and a high-volume manufacturer of certain components for sale to its rivals. In this way all five will be able to reach the 85 percent local content required to avoid import duty and quotas. They will also achieve the economies of scale desperately needed for profitability.

GMH could, for example, specialize in sheet metal and the production of dies and raw castings. Mitsubishi could concentrate on suspension items, Toyota and Datsun on machining parts and Ford on casting engine blocks.

GMH is already achieving high-volume with its J-car engine plant, and exporting the bulk of output.

The $300 million plant has now built over 230,000 engines of which 200,000 have been sold overseas, mainly to Britain and Germany. So far the plant has operated at a loss but the breakeven point is in sight.

GMH is negotiating to export 1,000 station wagon kits a month. As the only GM company outside the U.S. to build a wagon version of the J-car, GMH already has a contract to supply about 15,000 wagon kits to Vauxhall in Britain. Executives are confident there is a good chance of selling large numbers to Germany, South Africa, Japan and Brazil where sedans similar to the Camira are built. □

Prime time ahead for polyurethane

Mobay makes some optimistic forecasts

Reversing the trend of the past three years, the polyurethane industry is heading for five years of growth, according to G. T. Harrick, director of marketing, Polyurethane Division, Mobay Chemical Corp.

The Mobay official says his optimistic forecasts assume a recovering national economy. Mobay, whose parent company is Bayer AG of West Germany, is headquartered in Pittsburgh, and is the nation's largest producer of polyurethane chemicals.

Microcellular urethanes are expected to lead the way with an average gain of 10 percent during 1983-87, Harrick says. Rigid foam will rise an average of more than 6 percent annually, and flexible foam will climb by an average of 5 percent per year, the marketing executive forecasts. These estimates take into account a "leveling" projected for 1986, when a "readjustment" expected in the economy will affect the rigid and flexible segments of the industry, he says.

The three cellular segments of the polyurethane industry—flexible, rigid and microcellular—will show a combined 8.9 percent increase in 1983 over 1982, and a combined 32.6 percent jump in 1987 over 1982. According to preliminary figures, 1982 volume in the three categories was 1.685 billion pounds; 1.835 billion pounds is the forecast for 1983 and 2.235 billion for 1987.

No 1983-87 forecast was made for the non-cellular portion of the industry, which includes polyurethane coatings, caulks, adhesives, thermoplastics and cast urethanes.

Microcellular applications will grow by 12 percent in 1983 to a total of 100 million pounds—largely in the automotive and shoe industries—and by 65 percent to 149 million pounds in the five-year period from 1983 to 1987. "By the 1985 model year, fully 75 percent of all domestic cars will have polyurethane front and rear ends," Harrick says. He expects the growth of reinforced reaction injection molded (RRIM) auto components to reach 20 million pounds by 1987.

Rigid polyurethane foam volume is expected to increase modestly to 580 million pounds this year, approximately 6 percent above 1982's 545 million. This figure is based on expected increases in residential housing starts (sheathing) and appliance sales. Preliminary figures for 1982 show that rigid polyurethane chemical consumption of 545 million pounds was down 7 percent from the 1979 peak volume year.

"Flexible foam growth over the next five years will average 5 percent annually with a strong recovery this year and next," Harrick says. "This estimate is predicated on increased automotive sales, housing starts and furniture sales, but not including significant new penetration of the bedding market."

According to the preliminary figures, 1982 saw an 8.6 percent drop in consumption of flexible foam to 1.050 billion pounds from 1.149 billion pounds in 1981. Contributing significantly to this result was the year's 24-year low in domestic automobile production. Harrick predicts domestic auto sales will increase to 6.8 million in 1983 and an additional 10 percent next year. □

POLYURETHANE INDUSTRY FORECAST
1982 - 1987
(All poundage figures in millions)

	1982 (Prelim.)	1983	1984	1985	1986	1987
Flexible	1,050	1,155	1,247	1,310	1,310	1,350
Foam		+10%	+8%	+5%	.....	+3%
Rigid	545	580	635	695	695	735
Foam		+6%	+10%	+10%	.....	+6%
Micro-	90	100	113	125	135	149
cellular		+12%	+13%	+10%	+8%	+10%

How to reduce the weight of radiator parts

The radiator support on the 1984 Corvette combines an auto application first and a significant materials innovation.

One of the materials engineering innovations on the 1984 Chevrolet sports car is the light weight SMC used to mold components of the radiator support system. Also called the cooling module, this assembly supports the engine cooling radiator, the radiator fan and the air conditioner condenser. The assembly functions as a fan shroud and baffle to direct maximum air flow from front intake scoops to the radiator and condenser.

The composite radiator support assembly is the first to be installed on a U.S.-built passenger car.

Three parts of the radiator support are molded in 33 percent glass fiber sheet molding compound (high glass content for high strength) to which glass microballoons have been added to reduce weight.

Previous Corvettes used an all-steel assembly for these functions. By designing in SMC it reportedly was possible to reduce the weight of the assembly by more than half. By adding 5 percent by weight of microballoons (tiny hollow glass spheres), the weight of the SMC parts was reduced by another 10 percent. The estimated savings over a comparable steel structure is well over 60 percent. □

Opening day at Stillman Ford

William Luciano, second from right, Englewood (N. J.) deputy chief of police, cuts the ribbon at the opening of Stillman Ford, a division of Stillman & Hoag, Inc. (Buick). Also pictured, from left, are: Robert Donfield, Ford zone manager; Robert Farnon, vice president, Midlantic Bank; Walter Stillman, chairman of the board, and Ken Wilshaw, dealership general manager.

According to NHTSA's annual report

MPG topped CAFE in '81 and '82

WASHINGTON. — The total fleet average fuel economy exceeded the auto CAFE standard (24 MPG) by more than 2 MPG in the '82 model year and exceeded the '81 CAFE (22 MPG) by more than 3 MPG in the '81 model year, according to the Seventh Annual Report to Congress on the NHTSA fuel-economy program.

Total fleet average for makers whose products sold more than 10,000 worldwide (that is, all vehicle makers except low-volume ones) for the '82 model year was 26.2 MPG compared with 25.1 for the '81 model year.

While most auto makers showed improvements in '82 over '81, some did not. These include Volkswagen, for example, which was allowed by law to include its less-fuel-efficient imports — Porsche and Audi — and saw its CAFE drop from 33.5 MPG to 32.4 MPG.

Other makers may have been affected by sales of bigger models or those with more options.

Mazda, for example, slipped from 31.1 MPG in the '81 model year to 29.6 in '82, and BMW went from 26.6 in '81 to 26.4 in '82. Peugeot fell from 27.9 in '81 to 27.1 in '82, and Toyota averaged 30.4 in '82, down from 30.9 in '81.

Domestic makers showing improvement were (years listed are model years):

American Motors, 24.0 MPG for '82 from 22.5 for '81.

Chrysler Corp., 27.0 for '82 from 26.4 for '81.

Ford Motor Co., 24.5 for '82 from 23.3 for '81.

General Motors, 24.3 for '82 from 23.2 for '81.

Among imports showing improvement were:

Alfa Romeo, 24.2 MPG for '82 from 22.5 for '81.

Chrysler (Mitsubishi), 34.2 for '82 from 32.0 for '81.

Datsun, 30.8 for '82 from 30.5 for '81.

Ford Laser (sold by Ford in Puerto Rico; the Laser is the Mazda GLC), 34.6 for '82 from 34.3 for '81.

Honda, 33.4 for '82 from 30.8 for '81.

Isuzu, 35.8 for '82 from 34.7 for '81.

Jaguar, 18.8 for '82 from 18.4 for '81.

Mercedes-Benz, 26.1 for '82 from 25.1 for '81.

Renault, 32.2 for '82 from 29.4 for '81.

Saab, 24.1 for '82 from 23.4 for '81.

Subaru, 32.3 for '82 from 30.4 for '81.

Volvo, 25.0 for '82 from 22.3 for '81.

• NHTSA concluded in its report to Congress: "By 1995, the projected cumulative fuel savings if all new cars and light trucks were to just meet the federal fuel-economy requirements through 1985 would amount to approximately 400 billion gallons compared with consumption projected at 1976 vehicle fuel-economy levels."

American Motors took advantage of its special provision and will include 150,000 Renault Alliances in its 1983 CAFE, but AMC must achieve a domestic content of at least 50 percent in the 1983 model year and at least 75 percent in the 1986 model year.

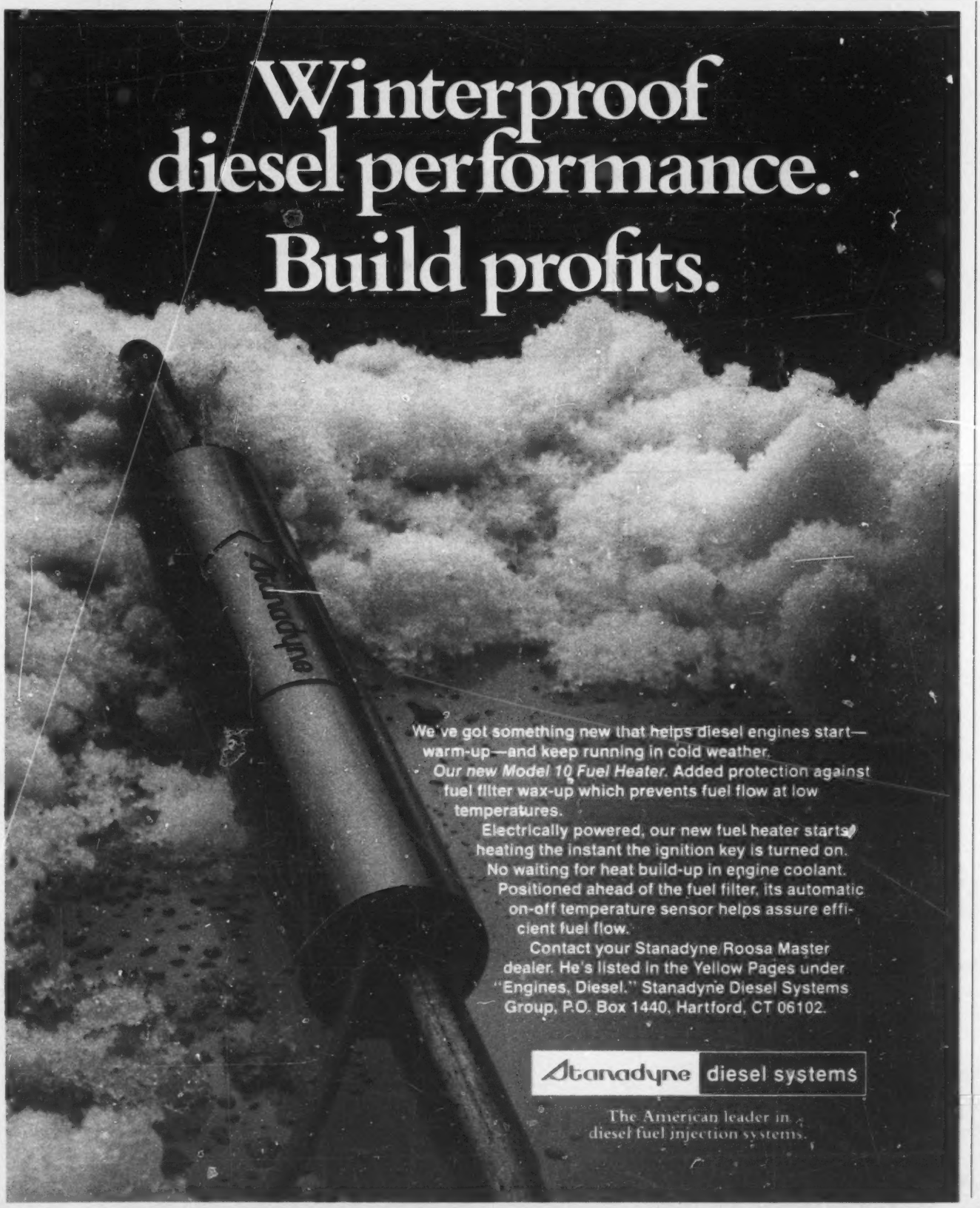
During fiscal 1982, Aston Martin, Avanti, Checker, Excalibur and Rolls-Royce petitioned NHTSA to be exempt from the 1981-85 general CAFE standards and asked for lower alternative standards. (Checker's petition was mooted when it stopped production last July.)

NHTSA reviewed the capability of each low-volume maker and, before setting the maximum feasible fuel-economy levels for them, made an adjustment for the California nitrogen oxide standard of a 7 percent fuel penalty. NHTSA then set the following standards:

Low-Volume Makers MPG Standards

Model Year	Avanti	Rolls-Royce	Aston Martin	Excalibur
1981	18.2	10.7	12.2	17.9
1982	18.2	10.6	12.2	17.9
1983	16.9	9.9	11.3	16.6
1984	16.9	10.0	11.3	16.6
1985	16.9	10.0	11.4	16.6

Currently, the only big job remaining for NHTSA to accomplish under the 1975 law is to set fuel-economy standards for 1986-87 model-year light trucks, which must be finished by December, 1983.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GM Motors Trading appoints Keuffel VP

DETROIT. — Gerd H. Keuffel has been appointed vice president of Motors Trading Corp., a subsidiary of General Motors. He will be responsible for countertrading and international sourcing operations for Latin America.

Keuffel most recently served as president of Hua Tung Automotive Corp., a joint venture operation between GM and Taiwan Machinery Mfg. Corp. He joined GM in 1964.

Pontiac paces Pikes Peak

A Pontiac 2000 Sunbird with a new 1.8-liter overhead cam, turbocharged four-cylinder engine was the official pace car at the 61st annual Pikes Peak Auto Hill Climb. The new turbo engine turns out 150 HP at 5,600 RPM and delivers 0-60 performance in about nine seconds.

factories list auction dates

American Motors

July 12—Aptco Auto Auction, Taylor, Mich., and D-A Auto Auction, New Stanton, Pa.

July 13—Central States Auto Auction, Mason City, Ia., and Columbus Fair Auto Auction, Obetz, O.

July 14—Evansville Auto Auction, Evansville, Ind., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

July 15—Floyd Hauhe Auto Auction, Bridgeton, Mo.

July 19—D-A Auto Auction, New Stanton, Pa.

July 20—Southern Auto Auction, Warehouse Point, Conn.; Kansas City Auto Auction, Kansas City, Mo.; Metro Milwaukee Auto Auction, Caledonia, Wis., and Columbus Fair Auto Auction, Obetz, O.

July 21—Todd Auto Auction, Telford, Pa., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

July 22—Concord Auto Auction, Acton, Mass.

July 26—Aptco Auto Auction, Taylor, Mich., and D-A Auto Auction, New Stanton, Pa.

July 27—Central States Auto Auction, Mason City, Ia.; Columbus Fair Auto Auction, Obetz, O., and Southern Auto Auction, Warehouse Point, Conn.

July 28—Evansville Auto Auction, Evansville, Ind., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

July 29—Floyd Hauhe Auto Auction, Bridgeton, Mo.

Chrysler Corp.

July 12—Aptco Auto Auction, Taylor, Mich.

July 14—Clanton's Auto Auction, Darlington, S. C.

Ford Motor Co.

July 12—Arena Auto Auction, Chicago, Ill.

July 13—Metro Auto Auction of Kansas City, Lee's Summit, Mo., and Golden Gate Auto Auction, Fremont, Calif.

July 14 — Skyline Auto Exchange, Fairfield, N. J.

July 19 — Harrisonburg Auto Auction, Harrisonburg, Va.

July 20—Columbus Fair Auto Auction, Obetz, O., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

July 27—Concord Auto Auction, Acton, Mass.; Lakeland Auto Auction, Lakeland, Fla., and Southern California Auto Auction, Fontana, Calif.

July 28 — 166 Auto Auction, Springfield, Mo.

General Motors

July 12 — Minneapolis Northstar Auto Auction, Shakopee, Minn.

July 14—Butler Auto Auction, Gibsonia, Pa.

July 18 — Florida Auto Auction of Orlando, Orlando, Fla.

July 20 — Golden Gate Auto Auction, Fremont, Calif.

July 21—Dallas Auto Auction, Dallas, Tex., and Indianapolis Auto Auction, Indianapolis, Ind.

July 27—Metro Auto Auction, Kansas City, Mo.

Model breakdown

Auction Averages

	JULY TO DATE	JUNE	MAY
1983	$11,955	$10,012	$10,293
1982	7,282	8,870	8,911
1981	5,827	5,142	8,258
1980	5,015	4,906	5,198
1979	4,225	4,644	4,530
1978	3,095	3,475	3,444
1977	2,823	2,779	2,705
1976	1,949	1,877	2,199
Overall Average	$ 4,810	$ 5,138	$ 5,173

Used Car Sales

Auction Averages

July to date	$4,810
Month ago	$5,393
Year ago	$4,982

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Imports climb 18 pct. in June

Domestic-car sales jump 47 pct.

By Jenny L. King
Staff Writer

Up, up and away. New-car sales continued their climb in June with their largest increase for any month this year and their best June total since 1979.

Domestics were up 48.01 percent over 1982, imports were up 18.17 percent and the industry total improved by 38.88 percent during the month.

Sales by the domestic auto makers numbered 668,145 in June, highest for the month since 700,897 in 1979 and more than 200,000 units above the abysmal 451,430 reported just one year ago. This June, makers and dealers provided guaranteed lower interest rates to assist consumers with payments; in 1982 there were no stimulants to prod sales.

Import sales totaled 235,282 compared with 199,100 in June of 1982. They accounted for a respectable 26.04 percent of the U. S. market. That was, however, their shallowest June penetration since 1979 when imports captured 22.47 percent of the market. Last year they claimed a record 30.61 percent; it was 29.59 percent in 1981, and 27.15 percent in 1980.

Total passenger-car sales for June numbered 903,427, up 38.88 percent from 650,530 the preceding year and the best June since 1979 when sales reached 904,000.

First-half domestic sales of 3,335,028 were up 13.64 percent compared with the first six months of 1982 when 2,934,824 new domestics were sold. Imports were up 10.63 percent in the first half, to 1,213,829 from 1,097,189. The industry total was up 12.82 percent, to 4,548,857 from 4,032,013.

• General Motors, Ford Motor Co., Volkswagen of America and Honda all reported their strongest month's sales for 1983 in June. GM was up 47.71 percent, to 382,650 from 259,056 last year. Ford jumped 40.72 percent, to 170,196 from 120,947. VW sales of 10,006 were up 27.99 percent from 7,818, and Honda reported deliveries of 5,248 new Accords from its Marysville, O., plant.

Chrysler Corp. was up 50.03 percent in June, to 83,779 from 55,842. American Motors doubled its sales in the sixth month, up 109.42 percent, to 16,266 from 7,767.

GM earned 57.27 percent of the domestic market in June, down slightly from 57.39 percent. Ford dipped to 25.47 percent from 26.79 percent. Chrysler edged up to 12.54 percent from 12.37 percent. AMC climbed to 2.43 percent from 1.72 percent, VWoA slipped to 1.50 percent from 1.73 percent and Honda earned 0.79 percent this year, its first June in the domestic market.

It was almost entirely good news for the domestic makes

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Where Auto Market was in first half, 1983

	Total Sales	Pct. of Total
SUBCOMPACT	577,763	12.70
COMPACT	727,967	16.00
INTERMEDIATE	1,168,895	25.70
STANDARD	620,103	13.63
LUXUR Y	240,300	5.28
IMPORT	1,213,829	26.69
TOTAL	4,548,857	100.00

Datsun dealers financing with 'balloon' note

Continued from Page 3

fits in well with his conventional financing plans, leasing programs and 8.8 percent truck rate.

Sherril Hops, executive director of the Southern California Datsun Dealers Assn., said the Assured Value Program was launched July 1 with "one of the strongest campaigns in cur history."

During the first 10 days, the association ran 238 30-second and 153 10-second spots on local television here. The association will run 200 more spots a week during the remaining three weeks of July.

"We had good sales in June," Bess said, "and we want to keep the momentum going."

The idea behind the short spots is to alert the public to the program, while the dealers are spelled out in print ads and by dealer personnel.

Despite the heavy media blitz, Bess said he hasn't been overwhelmed by the response. However, he attributes the lack of activity to the newness of the concept and the fact that it was launched over a holiday weekend.

NEW-CAR STOCKS

	July 1, 1983	June 1, 1983	July 1, 1982
Alliance	54	44	....
Spirit	50	41	70
Concord	22	18	66½
Eagle	93	89	70½
Eagle SX/4	71	69½	48
AMERICAN MOTORS	55	45	65
Horizon	45	44	72
Turismo	40	42	93
Reliant	41	30	74½
Gran Fury	35	45	50
Plymouth	41	35	74
LeBaron	60	62	97
Cordoba	57	67	91
E Class	97	95	....
New Yorker E	82	65	....
Fifth Avenue	74½	95	56
Chrysler	73	77	80½
Imperial	83	67	110
Omni	52	51½	93
Charger	50	45½	97
Aries	37	46	87
Dodge 400	59½	65	147
Dodge 600	101	83	....
Diplomat	41	69	63
Mirada	101	127	99
Dodge	50	55	93
CHRYSLER	56	53½	83
Escort	27	39	75
EXP	51	54	103
Mustang	59	76	98
Tempo	45	26	....
Fairmont	42	56	61
LTD	51	56	....
Thunderbird	84	88	92
Crown Victoria	30	45	50
Ford	44	58	75
Lynx	38	44	71
LN7	47	69	102½
Capri	78	117	137
Topaz	44	21	....
Zephyr	50	49	59
Marquis	58	62	....
Cougar XR7	70	57	93
Grand Marquis	39	41	51
Mercury	51	55½	71
Lincoln	61	42	61
Continental	95	90	84
Mark VI	75	78	81
Lincoln	72	59	74
FORD MOTOR	48	57	75
Skyhawk	33	26	150
Skylark	42	39	77
Century	62	57½	116
Regal 4-door	46	43	60
Regal coupe	47	44	65
LeSabre	33	31	52
Electra	55	51	63
Riviera	47	44½	74
Buick	45	42	77
Cimarron	50	71	164
Seville	59	55	127
Cadillac	52½	49	67
Eldorado	59	55	83
Cadillac	56	52	77
Chevette	46	57	147
Cavalier	23	28	143
Citation	64	60	118½
Camaro	47	53	40
Malibu	39½	45	51
Celebrity	44	53	134
Monte Carlo	60	56	80½
Chevrolet	50	54	61
Corvette	22	20	115
Chevrolet	43	48	89
Firenza	40	42	171
Omega	33	43	89
Ciera	50	47	98
Cutlass 4-door	28	26	46
Cutlass coupe	26	26	50
Olds 88	25	23	44
Olds 98	28	26	43
Toronado	53½	50	79
Oldsmobile	34	32	61½
1000	56	52	164
2000	30	26	167
Phoenix	60	57	120
Firebird	46	43	29
Bonneville	49	46	61
6000	48	45	183
Grand Prix	58	54	62
Parisienne	57	53	69½
Pontiac	47	44	86
GENERAL MOTORS	45	42	79
Volkswagen	47	63	105
TOTAL	47	47	78½

New-car stocks hold steady at 47-day supply

Continued from Page 1

day supply, up from 43 days June 1.

The July 1 domestic inventory was divided this way by market segment: Subcompact, 17.04 percent; compact, 21.32 percent; intermediate, 38.01 percent; standard, 16.32 percent, and luxury, 7.31 percent.

• The July 1 days-supply figures by market class were:

Subcompact—Escort, 27; Lynx, 38; Turismo, 40; Horizon, 45; Chevette, 46; Rabbit, 47; LN7, 47; Charger, 50; Spirit, 50; EXP, 51; Omni, 52; Alliance, 54; Pontiac 1000, 56, and Eagle SX/4, 71.

Compact—Cavalier, 23; Pontiac 2000, 30; Skyhawk, 33; Aries, 37; Firenza, 40; Reliant, 41; Fairmont, 42; Topaz, 44; Tempo, 45; Firebird, 46; Camaro, 47; Cimarron, 50; Zephyr, 50; Mustang, 59; Dodge 400, 59½; LeBaron, 60, and Capri, 78.

Intermediate — Concord, 22; Cutlass Supreme, 28; Omega, 33; Malibu, 39½; Skylark, 42; Celebrity, 44; Regal four-door, 46; Regal coupe, 47; Pontiac 6000, 48; Bonneville, 49; Cutlass Ciera, 50; LTD, 51; Grand Prix, 58; Marquis, 58; Monte Carlo, 60; Phoenix, 60; Century, 62; Citation, 64; XR7, 70; New Yorker E, 82; Thunderbird, 84; Eagle, 93; Chrysler E Class, 97, and Dodge 600, 101.

Standard—Olds 88, 25; Olds 98, 28; Crown Victoria, 30; LeSabre, 33; Gran Fury, 35; Grand Marquis, 39; Diplomat, 41; Chevrolet, 50; Electra, 55; Cordoba, 57; Parisienne, 57; Chrysler Fifth Avenue, 74½, and Mirada, 101.

Luxury — Corvette, 22; Riviera, 47; Cadillac, 52½; Toronado, 53½; Seville, 59; Eldorado, 59; Lincoln, 61; Mark VI, 75; Imperial, 83, and Continental, 95.

VW council elects officers

Volkswagen's National Dealer Advisory Council has elected officers for 1983-84. Seated, from left, are: Peter Weiher, executive vice president, sales and marketing, Volkswagen of America; Ben Hulsey, Volkswagen North Freeway, Houston, chairman, and James R. Fuller, vice president, Volkswagen Division of VWoA. Standing, from left, are: James Meier, Volkswagen of Beaverton, Beaverton, Ore., member-at-large; Bill Sullivan, Volkswagen Santa Monica, Santa Monica, Calif., vice chairman, and Richard Dean, Dick Dean Economy Cars, Ballwin, Mo., secretary.

Honda's new CR-X widens Japan's sporty coupe market

Continued from Page 1

used on the 1.8-liter Prelude and now used in the Accord.

The 1.5-liter unit has Honda's electronic fuel injection system, and the accent is on power, with a rated output of 110 HP (JIS) at 5,800 RPM, while maximum torque is 100 pounds-feet at 4,500 RPM.

Since the 1.3-liter unit is intended to give excellent gas mileage, the power output has been kept down to 80 HP at 6,000 RPM, and torque is 32 pounds-feet at 3,500 RPM.

It has a carburetor instead of fuel injection, and on the Japanese 10-mode emission cycle, the 1.3-liter car returned 47 MPG, while at a steady 37 MPH, gas mileage is quoted as 77.6 MPG.

Also new is the suspension. At the front, Honda has adopted struts with longitudinal torsion bars instead of the customary coil springs. This was done so the hood height could be lowered and to provide more room for the engine.

At the rear, a dead axle, located by a pair of radius rods and a Panhard rod, is used. Anti-roll bars are fitted front and rear, but the one at the back is unusual in that it is inside the axle beam.

• Inside the car is a sporty fascia with a small instrument panel, either electronic or conventional according to the model. The front seats are well shaped to hold the driver and passenger, but the rear seats are too small for anyone except small children.

There are a couple of novelties in the body design. First, on some models there is a sunroof panel that slides above the roof, instead of submarining below the roof, as is normal.

This allows the panel to be larger than normal and prevents the mechanism from encroaching too much on passenger headroom.

Also new is a fresh-air vent toward the rear of the roof which is opened like a periscope to draw air through a duct to two vents just above the windshield. Stale air is drawn out of the body through the central pillars, and to ease the flow, the rear quarter side windows curve inward to meet the pillar.

Honda is selling the Ballade Sports CR-X coupe through its Verno dealers, alongside the Prelude, Quintet, Ballade and Vigor. The car is being built at Suzuka at 3,000 units a month, which seems an ambitious sales target for this type of car in Japan.

Japan's exports of cars to U.S. off 10 pct. in May

WASHINGTON. — Exports of Japanese cars to the U. S. in May totaled 143,411, down 10.91 percent from 160,972 in the year-earlier month, according to the Japanese Automobile Manufacturers Assn.

In April, the car export figure was 189,486, which was 4.78 percent higher than in April, 1982. May's total this year was 24.3 percent below April's.

For the first five months of this year, Japanese car exports to the U. S. were down 2.93 percent. The total was 685,378 this year and 706,098 in 1982.

Japan's truck exports to the U. S. jumped 31.34 percent in May, totaling 44,417, compared with 33,818 a year ago.

Five-month truck exports to the U. S. were 207,177, a rise of 2.86 percent over last year's 201,423.

Car production in Japan in May was 575,496, up 4.66 percent from last year's 549,873. Five-month car production was up 2.62 percent, to 2,929,910 this year from 2,855,183 in 1982.

May truck production climbed 9.02 percent to 323,033 from 296,308. For five months, it was 1,624,966, up 2.10 percent from last year's 1,591,960.

New-car registrations in Japan in May were 214,655, up 999 from last year's 213,656.

New-truck registrations of 174,415 in May were 2.26 percent above last year's 170,562.

Imports climb 18 pct.

June car sales ablaze: Domestics up 48 pct.

Continued from Page 69

last month. All but Imperial and AMC were up. Cadillac reported its 10th consecutive monthly increase, up 53.91 percent from last year. Oldsmobile said June sales of 94,367 were its highest in 50 months. Chevrolet was up 62.76 percent, Buick was up 30.14 percent, Oldsmobile was up 56.91 percent and Pontiac was up 21.20 percent.

At Chrysler Corp., Plymouth was up 21.41 percent, Chrysler was up 65.04 percent, Dodge was up 70.02 percent and Imperial was off 49.70 percent.

Ford was up 34.25 percent, Mercury shot ahead 58.98 percent and Lincoln was up 22.96 percent.

AMC was off 46.23 percent, VW was up 27.99 percent, and both Renault Alliance and Honda had no year-ago sales for purposes of comparison.

• Imports enjoyed the June sales fest, too. Saab was the first to report June results and it was an any-month record for the Swedish auto maker. Saab sales were up 78.23 percent to 3,135 from 1,759 last year. Jaguar had its 31st consecutive month of monthly record sales and was up 74.89 percent, to 1,581 from 904.

Audi sales of 5,981 were up 40.40 percent from 4,260. June was a record month for Audi, and for BMW, up 31.01 percent to its second best month in history in the U. S. Mercedes-Benz was up 25.95 percent, Porsche was up 60.13 percent, Volvo was up 9.03 percent and Peugeot was up 7.07 percent.

Top import Toyota exploded to 56,486 from 46,977, an increase of 20.24 percent. Second-place Nissan was up 16.35 percent to a June record of 54,389 from 46,747 a year earlier. Imported Hondas were up 6.90 percent, Mazda was up 8.81 percent and Subaru was up 14.33 percent.

Imports accounted for 26.04 percent of the total market in June, followed by U. S. intermediates at 25.01 percent, compacts at 17.60 percent, subcompacts at 13.86 percent, standards at 12.75 percent and luxury models at 4.74 percent.

Of the domestics-only market, 33.82 percent were intermediates, 23.79 percent were compacts, 18.74 percent were subcompacts, 17.24 percent were standard-size cars and 6.41 percent were luxuries.

• June 21-30 domestic sales were up 53.39 percent, to 252,513 from 158,420 last year. There were nine selling days in the period, yielding an average 28,057 sales per day this year compared with 17,602 in 1982 when there also were nine days.

The daily selling rate for all of June was 25,698 for the domestics, up 48.01 percent from 17,363 a year earlier. There were 26 selling days both years.

Annualized sales based on third-period results were 6,893,605.

In late June, GM sales were up 44.31 percent, Ford was up 76.76 percent, Chrysler was up 58.60 percent, AMC was up 273.45 percent and VWoA was up 46.92 percent.

GM earned 51.20 percent of the period's market, Ford had 29.60 percent, Chrysler had 12.87 percent, VWoA had 2.25 percent, AMC had 3.25 percent and Honda swept up the remaining 0.83 percent.

Ford Motor Co. sales of 74,743 were its best for any of the 18 sales periods so far this year. VW's 5,668 were its strongest and AMC's 8,216 were its second best for any 10-day period this year.

Ford Division sales of 54,188 put it at the top of the heap, surpassing Chevrolet's total of 48,420 and Oldsmobile's 26,825.

• Domestic sales were up 13.64 percent in the first half of calendar year 1983. GM was up 10.24 percent, to 1,983,327 from 1,799,035 last year. Ford was up 9.31 percent, to 758,263 from 693,697. Chrysler climbed 23.67 percent, to 432,814 from 349,978. AMC more than doubled its 1982 results, up 119.90 percent to 101,120 from 45,985. VWoA was down 7.56 percent, dropping to 42,643 from 46,129, and Honda first-half sales totaled 16,861.

GM earned 59.47 percent of the six-month domestic market, down from 61.30 percent in 1982. Ford dipped to 22.74 percent from 23.64 percent. Chrysler was up to 12.98 percent from 11.92 percent. AMC was strong, going to 3.03 percent from 1.57 percent, VWoA dropped to 1.28 percent from 1.57 percent and Honda had 0.50 percent of the 1983 first-half market.

Second-quarter, 1983, sales totaled 1,878,108, up 22.42 percent from 1,534,134 a year earlier. It was the best result for the quarter since 1979 when 2,261,607 new cars were retailed. Second-quarter sales were up 28.91 percent from the first quarter's 1,456,920.

Where Auto Market was in June, 1983

	Total Sales	Pct. of Total
SUBCOMPACT	125,181	13.86
COMPACT	158,950	17.60
INTERMEDIATE	225,970	25.01
STANDARD	115,201	12.75
LUXURY	42,843	4.74
IMPORT	235,282	26.04
TOTAL	903,427	100.00

U. S. CAR SALES BY MARKETING UNITS

	June, 1983	June, 1982	6 mos., 1983	6 mos., 1982
Chevrolet	143,336	88,066	666,959	657,749
Ford	119,286	87,367	514,388	480,886
Oldsmobile	94,367	60,142	505,026	408,667
Buick	71,129	54,656	415,483	360,999
Toyota	56,486	46,977	282,117	264,235
Pontiac	46,935	38,725	251,210	255,325
Nissan	54,389	46,747	275,854	231,121
Honda	37,861	30,507	198,824	189,620
Mercury	42,458	26,706	195,556	169,127
Dodge	39,464	23,942	186,937	156,741
Plymouth	30,326	24,615	165,777	156,918
Cadillac	26,883	17,467	144,649	116,295
VW of America	24,300	19,009	113,780	108,090
Chrysler/Imperial	24,421	14,913	128,325	83,936
Mazda	15,286	14,048	89,101	76,886
Subaru	14,230	12,446	79,319	72,448
AMC-Renault	19,972	12,391	117,168	66,122
Lincoln	8,452	6,874	48,319	43,684
Volvo	8,496	7,792	48,020	37,323
Mercedes-Benz	6,828	5,421	35,780	31,969
BMW	6,033	4,605	26,680	24,560
Saab	3,135	1,759	13,926	8,845
Isuzu	2,083	1,125	9,837	6,522
Fiat	944	1,462	4,571	9,984
Peugeot	1,423	1,329	7,413	7,002
Jaguar	1,581	904	7,733	4,473
Mitsubishi	2,742	.....	13,991	.....
DeLorean	35†	332	335†	1,549
Alfa Romeo	546	203	1,779	940
TOTAL	903,427	650,530	4,548,857	4,032,013

† Estimate.

IMPORTED CAR SALES

	June, 1983	June, 1982	6 mos., 1983	6 mos., 1982
Alfa Romeo	546	203	1,779	940
Audi	5,981	4,260	22,391	22,752
BMW	6,033	4,605	26,680	24,560
Challenger	1,888	1,349	8,584	7,518
Plymouth Colt	3,214	2,518	15,171	16,473
Dodge Colt	3,772	2,711	17,742	17,834
DeLorean	35†	332	335†	1,549
Fiat	878	1,334	4,104	9,533
Honda	32,613	30,507	181,963	189,620
Isuzu	2,083	1,125	9,837	6,522
Jaguar	1,581	904	7,733	4,473
Lancia	66	128	467	451
Mazda	15,286	14,048	89,101	76,883
Mitsubishi	2,742	.....	13,991	.....
Mercedes-Benz	6,828	5,421	35,780	31,969
Nissan	54,389	46,747	275,854	231,121
Peugeot	1,423	1,329	7,413	7,002
Porsche	2,245	1,402	11,168	8,971
Renault	3,706	4,624	16,048	20,137
Saab	3,135	1,759	13,926	8,845
Sapporo	1,558	1,050	6,728	5,792
Subaru	14,230	12,446	79,319	72,448
Toyota	56,486	46,977	282,117	264,235
Volkswagen	6,068	5,529	37,578	32,238
Volvo	8,496	7,792	48,020	37,323
TOTAL	235,282	199,100	1,213,829	1,097,189

† Estimate

Chevy recalling 800,000 vehicles for catalyst fix

WARREN, Mich. — Chevrolet is recalling some 800,000 vehicles from its 1981 and 1982 model years so catalytic converters can be reconditioned.

Full-size, intermediate and Camaro passenger cars and sedan delivery pickups equipped with Chevrolet-built V-6 and V-8 engines are involved.

The reconditioning will eliminate the possibility that fragmented catalyst beads might restrict the flow of exhaust gases. This could reduce vehicle performance.

Chevrolet said the voluntary action is being taken in the interest of customer satisfaction, since the cars involved continue to meet federal tailpipe emission standards, even if the converter does become partially restricted.

DOMESTIC CAR SALES

	June 21 to June 30, 1983	Same Period, 1982	June, 1983	Same Month, 1982	Jan. 1 to June 30, 1983	Same Period, 1982
Renault Alliance	.....	.....	12,090	.....	70,770	.....
Spirit	.....	.....	409	1,736	3,536	10,866
Concord	.....	.....	1,253	2,842	10,629	15,786
Eagle	.....	.....	2,514	3,189	16,185	19,333
AMC	.....	2,200	4,176	7,767	30,350	45,985
AMERICAN MOTORS*	8,216	2,200	16,266	7,767	101,120	45,985
Horizon	2,310	1,262	5,699	3,523	24,944	27,075
Turismo/TC3	1,717	1,213	3,910	3,068	18,206	20,326
Reliant	5,303	4,200	13,896	12,197	88,950	75,830
Plymouth	713	937	2,049	2,259	11,778	11,422
Total Plymouth	10,043	7,612	25,554	21,047	143,878	134,653
LeBaron	.....	.....	.....	.....	.....	912
LeBaron K	3,336	2,947	8,128	7,822	41,653	44,767
Cordoba	444	455	1,134	1,206	7,914	7,889
New Yorker 5th Ave.	3,236	2,140	7,936	5,718	42,830	28,671
E-Class	1,294	.....	3,076	.....	18,202	.....
New Yorker	1,755	.....	4,063	.....	16,740	.....
Total Chrysler	10,065	5,542	24,337	14,746	127,339	82,239
Total Imperial	32	48	84	167	986	1,697
Omni	2,272	922	5,153	2,654	22,388	22,088
Charger/024	2,219	1,190	5,152	3,052	21,735	21,223
Aries	4,286	2,780	13,351	8,541	65,777	56,616
Dodge 400	1,289	945	3,249	2,350	17,233	12,968
Diplomat	1,028	1,233	3,842	2,708	16,250	14,466
Mirada	182	214	475	577	2,847	4,028
Dodge 600	1,075	.....	2,582	.....	14,381	.....
Total Dodge	12,351	7,284	33,804	19,882	160,611	131,389
CHRYSLER CORP.	32,491	20,486	83,779	55,842	432,814	349,978
EXP	1,244	1,202	2,812	3,538	12,380	22,627
Escort	18,782	13,046	41,453	33,679	184,494	180,255
Tempo	7,636	.....	15,237	.....	17,658	.....
Mustang	5,485	3,465	12,766	10,431	61,802	61,854
Fairmont	947	3,827	2,489	11,857	33,389	69,496
Granada	.....	3,809	.....	10,379	3,751	60,497
Thunderbird	6,360	1,393	14,494	4,281	53,156	22,319
LTD '83	7,559	.....	16,704	.....	79,296	.....
Ford Crown Victoria	6,175	4,512	13,331	13,202	68,462	63,838
Ford Division	54,188	31,254	119,286	87,367	514,388	480,886
LN7	307	303	698	1,026	3,519	8,043
Lynx	4,165	3,195	9,560	8,079	43,960	51,470
Topaz	2,067	.....	4,818	.....	5,761	.....
Zephyr	161	940	548	3,252	10,783	22,221
Cougar/Monarch	.....	1,428	.....	4,124	906	26,488
XR-7	3,687	409	8,959	1,413	31,586	8,146
Capri	973	610	2,436	2,004	11,941	15,513
Marquis '83	2,341	.....	6,430	.....	31,506	.....
Mercury Grand Marquis	3,334	2,225	9,009	6,808	55,594	37,246
Total Mercury	17,035	9,110	42,458	26,706	195,556	169,127
Continental	411	419	1,028	1,393	7,930	12,222
Lincoln	2,001	916	4,433	3,261	25,490	17,899
Mark VI	1,108	586	2,991	2,220	14,899	13,563
Total Lincoln	2,520	11,921	8,452	6,874	48,319	43,684
L-M Division	20,555	11,031	50,910	33,580	243,875	212,811
FORD MOTOR	74,743	42,285	170,196	120,947	758,263	693,697
Skyhawk	2,116	1,008	6,892	4,121	40,234	18,616
Skylark	3,913	2,185	11,648	8,840	56,484	80,090
Century FD	3,647	1,630	11,400	6,824	62,420	43,890
Regal Sedan	2,021	1,792	6,212	6,833	39,684	41,449
Regal Coupe	4,371	3,269	12,758	11,312	80,329	73,197
Le Sabre	3,941	2,656	12,220	8,727	74,328	52,504
Electra	2,095	1,263	6,574	4,647	38,194	28,658
Riviera	885	790	3,425	3,352	23,810	22,595
Buick Division	22,989	14,593	71,129	54,656	415,483	360,999
Cimarron	805	154	2,142	476	10,350	6,256
Seville	1,057	337	2,764	1,154	14,649	11,135
Cadillac	6,140	4,299	16,007	11,724	87,224	71,513
Eldorado	2,341	1,441	5,970	4,113	32,426	27,391
Cadillac Division	10,343	6,231	26,883	17,467	144,649	116,295
Chevette	6,697	4,589	19,566	11,585	93,716	120,267
Cavalier	11,541	2,279	30,815	6,163	118,634	62,130
Citation	3,309	4,072	9,969	10,833	56,545	105,273
Camaro	6,343	6,394	19,099	15,808	88,997	96,481
Celebrity	5,382	2,771	16,489	6,803	72,375	42,461
Malibu	3,577	4,222	11,109	9,692	57,209	60,846
Monte Carlo	2,909	2,906	9,145	7,205	48,298	53,233
Chevrolet	7,779	7,698	24,410	18,295	117,661	104,564
Corvette	883	692	2,734	1,682	13,524	12,494
Chevrolet Division	48,420	35,623	143,336	88,066	666,959	657,749
Firenza	1,695	472	5,887	2,060	24,634	11,553
Omega	1,966	1,051	7,246	4,324	30,655	40,729
Cutlass Ciera	4,799	1,894	16,886	7,650	81,795	52,054
Cutlass Supreme	8,300	6,216	29,248	22,725	169,665	150,867
Olds 88	6,104	4,229	21,877	14,953	122,248	91,674
Olds 98	2,914	1,559	9,816	5,982	56,667	43,919
Toronado	1,047	695	3,407	2,448	19,362	17,871
Oldsmobile Division	26,825	16,116	94,367	60,142	505,026	408,667
1000	1,521	1,189	3,425	2,745	17,905	27,896
2000	4,287	1,507	9,671	3,603	45,164	28,116
Phoenix	1,049	1,315	2,467	3,312	14,714	28 249
Firebird	3,375	4,990	7,526	11,104	45,007	57,542
6000	3,058	1,584	6,992	3,715	39,189	21,987
Bonneville	2,887	2,962	6,630	6,874	39,835	40,359
Grand Prix	3,339	3,388	7,696	7,279	44,059	47,487
Pontiac	1,199	93	2,528	183	5,337	3,689
Pontiac Division	20,715	17,028	46,935	38,725	251,210	255,325
GENERAL MOTORS	129,292	89,591	382,650	259,056	1,983,327	1,799,035
VOLKSWAGEN	5,668	3,858	10,006	7,818	42,643	46,129
HONDA	2,103	.....	5,248	.....	16,861	.....
DOMESTIC TOTAL	252,513	158,420	668,145	451,430	3,335,028	2,934,824
IMPORT TOTAL	.....	.....	235,282	199,100	1,213,829	1,097,189
INDUSTRY TOTAL	.....	.....	903,427	650,530	4,548,857	4,032,013

*—AMC does not issue a nameplate breakdown for 10-day periods.

Makers build 653,151 cars for month

June output 19 pct. above '82 total

By Mary Beth Mayer
Staff Writer

Domestic auto production in June was far above that of the 1982 month, and the second-quarter total was the highest for any quarter since the second three months of 1981.

In June, the manufacturers completed 653,151 cars, up 19.45 percent over 546,807 units built in the same month last year. Last month was the highest month of car production since June, 1981, when 712,524 units were assembled.

Production for the second quarter was 1,798,293 units, up 18.29 percent from the same period last year. It was the greatest output for any quarter since 2,032,219 units were produced in the second quarter of 1981.

During the first half of this year, the auto makers completed 3,302,571 units, up 29.37 percent from 2,554,863 built in the first six months of last year.

Breakdown for June by company was: General Motors, 59.92 percent; Ford Motor Co., 22.65 percent; Chrysler Corp., 12.75 percent; American Motors, 2.58 percent; Volkswagen of America, 1.28 percent, and Honda, 0.82 percent.

The shortened holiday week and downtime at all Ford facilities, Chrysler's St. Louis plant, AMC's Kenosha point and Honda's Marysville facility pulled last week's estimated car production down 33.18 percent to 91,022 units from 136,212 the previous week. Output, however, rose 7.14 percent from the 84,957 units completed during the four-day year-ago period.

A two-week vacation began last week at all of Ford's car assembly points, except the Edison (N. J.) plant, which closed a week earlier. Production is slated to resume July 18.

The AMC Kenosha plant and Honda's Marysville facility are also on vacation and are scheduled to resume production this week.

Also closed was Chrysler's St. Louis plant, which is preparing for the launch of the 1984 front-wheel-drive two-door models. The facility is slated to return July 18.

GM points which worked last Saturday (July 9) were Fairfax, Flint, Lansing, Leeds and Lordstown.

Three Chrysler plants, Belvidere, Jefferson and Newark, worked two daily nine-hour shifts last week.

Auto production in Canada shows 7 pct. gain for June

Canadian auto production in June jumped 7.76 percent from the year-ago month, bringing the total for the second quarter up 12.07 percent from the comparable 1982 period.

The manufacturers built 100,357 cars in June, up from 93,132 in the same month last year.

Output for the second quarter reached 295,799 units, up from 263,943 built during the second three months in 1982. It was the most for any quarter since 328,270 cars were built during the second quarter of 1978.

During the first half of 1983, the auto makers assembled 534,168 units, a gain of 16.98 percent from 456,616 built the first six months last year.

The truck manufacturers finished 53,948 units in June, down 2.34 percent from 55,243 during that month last year.

For the second quarter, the makers produced 153,864 trucks, down 2.26 percent from 157,422 last year.

There were 274,445 trucks produced during the first half of the year, down slightly from 275,778 in the 1982 period.

The auto makers scheduled 12,365 units last week, down from 17,867 built in the previous holiday week. Vacation downtime at two Ford Motor facilities cut last week's total. Output was also down 5.70 percent from 13,112 units built in the comparable 1982 week.

So far this year, the auto manufacturers have assembled 545,660 cars, a jump of 10.72 percent from 492,824 assembled in the same period last year.

• Truck production last week totaled 7,889 units, down 13.73 percent from the previous four-day week's 9,145, due to vacation downtime at Ford's Oakville facility. The total was up 13.61 percent from 6,944 trucks in the comparable 1982 week.

Year-to-date, the truck makers have completed 282,963 units, down 2.61 percent from 290,559 in the comparable 1982 period.

Ford's Oakville and St. Thomas facilities are in the midst of a three-week vacation which began July 4. Both points are slated to return July 25.

American Motors' Brampton point has been down since June 21 for a summer break. Operations there will resume July 18.

Chrysler Corp.'s Windsor car plant is retooling for the 1984 front-wheel drive T-115 van/wagon, which it will begin to produce during the first week of October.

International Harvester's Chatham and Vancouver facilities remained closed for model changeover. Operations there, idled May 23, are scheduled to resume July 25.

General Motors' St. Therese and Scarborough facilities logged eight hours of overtime last week. This week, GM's Oshawa Plant No. 2 and Oshawa truck facility will work eight hours of overtime, while the St. Therese point will work 16 hours of overtime.

Goodyear plant receives Ford quality award

GADSDEN, Ala. — Goodyear's tire plant here has received Ford Motor Co.'s Q1 Preferred Quality Award.

To be considered for the award, suppliers must have an excellent Ford quality rating and an effective quality assurance system that includes process control capability and the use of statistical control techniques.

Truck output best since 1979 for June, 2nd quarter

The domestic truck makers assembled 233,386 units during June, making that month and the second quarter of this year the highest for truck production since comparable periods in 1979.

Last month's total was up 9.65 percent from 212,837 in June, 1982. It was the most for any month since 292,897 in June, 1979.

For the second quarter, the truck manufacturers completed 631,255 units, a 7.12 percent gain from 589,279 built in 1982. It was the most for any quarter since the second quarter of 1979 when 887,948 units were built.

During the first half of this year, the makers produced 1,142,657 trucks, up 8.60 percent from 1,052,132 trucks built during the first six months last year.

Due to the shortened holiday week plus vacation at all Ford Motor Co. facilities and American Motors' Toledo plant, the truck makers scheduled only 23,421 units last week, down 49.73 percent from 46,595 units built the previous week, and down 5.63 percent from the 24,817 trucks assembled during the comparable 1982 period.

All Ford truck facilities were idle last week, starting a two-week vacation. AMC's Toledo plant is also on summer vacation and will return today (July 11).

Two shifts of Saturday overtime was scheduled last week at General Motors' Lordstown, Pontiac and St. Louis facilities.

Chrysler Corp.'s Warren point was on a daily overtime schedule last week.

U. S. CAR PRODUCTION

	Week Ended July 9, 1983	Week Ended July 10, 1982	Week Ended July 2, 1983	June Total	Jan. 1 to July 10, 1982	Jan. 1 to July 9, 1983
AMERICAN MOTORS	.....	1,600*	.....	16,840	30,719*	89,855
AMC Total	.....	.....	.....	.....	30,719*	4,071
Concord	.....	.....	.....	.....	.....	3
Eagle	.....	.....	.....	.....	.....	4,068
Renault Total	.....	.....	.....	16,840	.....	85,784
Alliance	.....	.....	.....	16,840	.....	85,784
CHRYSLER CORP.	14,450	11,766	15,772	83,288	328,966	452,859
Plymouth Total	5,500	5,299	5,976	27,829	135,015	161,709
Horizon	2,100	1,879	2,460	11,159	42,180	56,923
Reliant	3,400	3,420	3,399	15,876	92,835	101,860
Caravelle ('83)	.....	.....	117	794	.....	2,909
Chrysler Total	3,100	2,409	3,185	19,874	65,474	109,155
LeBaron	1,100	2,409	1,058	8,087	65,474	50,090
Chrysler E-Class	2,000	.....	2,127	11,787	.....	59,065
Dodge Total	5,850	4,058	6,611	35,585	128,477	181,995
Omni	2,300	1,811	3,025	14,302	39,884	65,037
Aries	2,200	1,592	2,274	13,505	69,732	75,861
Dodge 400	150	655	313	2,720	18,861	17,851
Dodge 600	1,200	.....	999	5,058	.....	23,246
FORD MOTOR	.....	.....	31,680	147,968	612,210	768,808
Ford Division	.....	.....	19,229	89,765	390,580	493,415
Escort	.....	.....	3,379	22,317	155,973	136,944
Fairmont	.....	.....	.....	.....	69,193	23,728
Mustang	.....	.....	3,464	8,410	72,685	63,944
LTD/Granada	.....	.....	3,450	16,583	66,862	92,125
Thunderbird	.....	.....	3,700	19,700	21,709	106,957
Crown Victoria/Ford	.....	.....	1,999	1,412	.....	47,798
EXP	.....	.....	.....	.....	4,158	1,184
Tempo	.....	.....	3,237	13,343	.....	20,735
L-M Division	.....	.....	12,451	58,203	221,630	275,393
Mercury Total	.....	.....	9,515	45,900	169,545	217,078
Lynx	.....	.....	1,775	7,700	47,123	35,930
Capri	.....	.....	684	1,427	18,203	12,335
Zephyr	.....	.....	.....	.....	22,775	8,601
Marquis/Cougar	.....	.....	1,465	7,804	31,695	39,476
Cougar/XR7	.....	.....	3,258	16,931	7,245	60,694
Gr. Marquis/Marquis	.....	.....	1,529	8,507	41,590	52,655
LN7	.....	.....	.....	.....	914	290
Topaz	.....	.....	804	3,531	.....	6,081
Lincoln Total	.....	.....	2,936	12,303	52,085	58,315
Continental ('82)	.....	.....	310	1,228	10,944	8,516
Lincoln	.....	.....	1,730	7,178	23,501	30,406
Mark VI	.....	.....	896	3,847	17,640	19,393
GENERAL MOTORS	76,102	71,491	85,108	391,360	1,775,158	2,032,963
Buick Division	18,232	17,542	20,621	96,532	414,424	476,255
Skylark	2,696	3,056	3,377	15,171	75,653	59,141
Skyhawk J	1,530	1,712	1,461	6,434	47,036	38,434
Century	3,093	2,842	3,990	18,422	71,720	84,869
Regal	4,212	4,855	4,327	22,590	107,515	132,514
Buick	5,725	4,270	6,242	26,527	91,283	137,200
Riviera	976	807	1,224	5,388	21,217	24,097
Cadillac Division	5,008	4,779	5,986	26,061	134,079	173,212
Cimarron	272	244	322	1,351	2,351	10,965
Seville	464	239	583	2,564	12,611	18,469
Eldorado	1,072	1,067	1,347	5,923	34,353	40,544
Cadillac	3,200	3,229	3,734	16,223	84,764	103,234
Chevrolet Division	26,801	21,618	30,050	135,990	555,984	649,067
Chevette	4,103	4,418	4,182	19,805	121,754	98,647
Cavalier	7,084	1,569	7,940	34,811	46,683	145,480
Celebrity	4,329	1,493	5,044	21,722	37,175	65,405
Camaro	4,104	3,816	4,197	20,807	121,003	105,451
Citation	1,152	3,917	1,460	7,404	97,435	58,318
Malibu	2,644	2,600	3,212	12,339	63,149	82,537
Monte Carlo	1,488	1,511	1,819	8,625	36,846	48,741
Chevrolet	1,405	1,808	1,578	7,749	16,087	37,618
Corvette	492	486	618	2,728	15,762	11,870
Oldsmobile Division	18,509	15,916	19,919	96,513	414,215	528,385
Omega	1,352	1,870	1,757	7,242	46,212	35,093
Firenza	824	1,732	996	4,797	32,828	25,729
Cutlass	5,282	4,855	5,246	26,076	105,124	151,506
Cutlass/Ciera	3,588	1,411	4,356	21,082	65,426	104,681
Oldsmobile	6,775	5,412	6,704	33,515	145,261	190,134
Toronado	688	636	860	3,801	19,364	21,242
Pontiac Division	7,552	11,636	8,532	37,363	256,546	206,044
Acadian†	.....	530	260	1,158	6,705	9,446
2000	2,228	1,279	2,298	10,963	22,323	54,631
1000	992	1,095	977	3,010	19,571	22,325
Firebird	2,056	2,589	2,163	10,207	72,102	50,789
Phoenix	584	1,481	731	2,234	27,822	15,084
G. Prix/B'ville ('83)	1,692	3,053	2,103	9,791	86,728	53,769
6000	.....	1,609	.....	.....	21,295	.....
HONDA	.....	.....	1,286	5,361	.....	18,477
VOLKSWAGEN	470	.....	2,366	8,334	49,316	47,986
CHECKER	.....	100*	.....	.....	2,163*	.....
Total Cars, U. S.	91,022	84,957	136,212	653,151	2,798,532	3,410,858

TRUCK PRODUCTION IN U. S.†

	Week Ended July 9, 1983	Week Ended July 10, 1982	Week Ended July 2, 1983	June Total	Jan. 1 to July 10, 1982	Jan. 1 to July 9, 1983
CHEVROLET	15,571	13,463	16,782	83,112	375,332	413,066
DODGE	2,000	2,914	2,660	13,086	72,240	70,940
FORD	.....	944*	20,141	97,454	386,161	461,762
GMC	3,910	4,84[illegible]	4,911	23,339	136,604	134,731
INTERNATIONAL	1,100*	.....	1,051*	5,168*	27,222	26,860*
VOLKSWAGEN	.....	.....	.....	.....	8,103	2,079
JEEP	.....	1,600*	.....	6,607	43,911*	38,494
AM GENERAL	40*	50*	50*	220*	1,230*	1,280*
MISCELLANEOUS	800*	1,000*	1,000*	4,400*	31,000*	25,600*
Total Trucks, U. S.	23,421	24,817	46,595	233,386	1,083,803	1,174,812

CANADIAN TRUCK PRODUCTION

	Week Ended July 9, 1983	Week Ended July 10, 1982	Week Ended July 2, 1983	June Total	Jan. 1 to July 10, 1982	Jan. 1 to July 5, 1983
CHRYSLER CORP.	2,240	2,625	1,800	11,588	56,745	70,495
FORD MOTOR	.....	600	2,842	15,480	77,569	73,196
GENERAL MOTORS	5,649	3,719	4,503	26,880	149,610	136,056
INTERNATIONAL	.....	.....	.....	.....	6,635	3,216
Total Trucks, Canada	7,889	6,944	9,145	53,948	290,559	282,963
N. American Trucks	31,310	31,761	55,740	287,334	1,374,362	1,457,775

†—Now includes window van production. *—Estimated.
Jeep includes commercial only. AM General includes government-destined vehicles.

CANADIAN CAR PRODUCTION

	Week Ended July 9, 1983	Week Ended July 10, 1982	Week Ended July 2, 1983	June Total	Jan. 1 to July 10, 1982	Jan. 1 to July 9, 1983
AMERICAN MOTORS	.....	.....	.....	2,459	14,192	15,532
CHRYSLER CORP.	.....	4,255	.....	6,733	91,969	103,857
FORD MOTOR	.....	340	7,921	34,568	172,051	120,080
GENERAL MOTORS	12,140	8,292	9,721	55,608	208,795	300,521
VOLVO	225	225	225	989	5,817	5,670
Total Cars, Canada	12,365	13,112	17,867	100,357	492,824	545,660
N. American Cars	103,387	98,069	154,079	753,508	3,291,356	3,956,518
N. American Trucks	31,310	31,761	55,740	287,334	1,374,362	1,457,775
North American Cars and Trucks	134,697	129,830	209,819	1,040,842	4,665,718	5,414,293

†—All Acadians and Caravelles are built for sale in Canada. *—Estimated.

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Automotive News

July 18, 1983

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Industry leaders in upbeat mood at World Congress and World Expo

Automotive News Week fosters optimism

By Matt DeLorenzo
Staff Writer

A sense of cautious optimism pervaded Automotive News Week as industry leaders from around the world gathered in Detroit to exchange ideas at the eighth annual Automotive News World Congress and to shop for hardware at the second annual Automotive News World Expo.

The generally upbeat tone of World Congress speakers combined with recent improved automotive sales figures contributed to the positive attitude, although many auto executives conceded that the industry is not out of the woods yet.

A display of vehicles outside the main hall at the World Congress perhaps typified the reasons why there was cause for optimism.

Included were Audi's Avant station wagon and Ford's Thunberbird Turbo Coupe, embodying the new European-inspired aerodynamic look. Chrysler's T-115 compact van was also displayed, showing the future course of the truck market, as was one of Nissan's U. S.-produced compact pickups.

Adding to the international flavor was an Opel Senator, and to show that the future will include limited-volume specialty makes, an Avanti was included.

• Over at Cobo Hall, the second annual Automotive News World Expo, a four-day international buy/sell trade fair, attracted nearly 12,000 engineers, designers, product planners and manufacturing and marketing managers.

More than 180 exhibitors from around the world displayed components, materials, machinery, design concepts, systems and services for the auto industry.

Some companies, both large and small, used the World Expo to unveil new technology or concepts.

Goodyear Tire & Rubber showed the recently announced air suspension system that will be used as standard equipment on the 1984 Mark VII. In addition to the air springs, Goodyear also displayed air-supported MacPherson struts.

Steven Hurt, product manager for Goodyear, said his company's display attracted "good traffic and a lot of interest."

Hurt said that while Goodyear works closely with engineers in developing such a system, World Expo affords the opportunity to have "more access to product planners, those involved in strategic planning, advertising and public relations."

He added that "when you try to sell a new product, the people who ultimately have to approve it often don't get a first hand look." World Expo affords that opportunity.

"It's a high quality show," Hurt said.

Waller Motors, a small company in Clearwater, Fla., used World Expo to introduce its exotic new X-3 engine. Francis Waller, the motor's designer, said the powerplant uses horizontally-opposed pistons to turn a "cam lobe having two opposing sinusoidal surfaces."

The small booth was busy throughout the show, Waller said. "At any given time, we had six or eight people standing around," he said, adding. "The response is fantastic."

Most of the interest came from engineers from domestic car companies, Waller said.

There was quite a bit less activity at the booth put together by the Republic of Korea. One speaker at the World Congress predicted that Korea may someday be a world leader in automotive production, yet, one of the Korean exhibitors said he didn't have too many visitors to his display.

However, the Koreans view the U. S. as an important market for their products and components, according to the exhibitor.

Helping buyers and sellers find each other at the expo was the show's Match-Maker Service. Special forms detailing the needs of the buyer or seller were posted under one of 14 categories of parts, systems and services.

The system matched the needs of buyers and sellers in similar categories and in the first few days of the show, more than 1,000 requests were taken.

Next year's Automotive News Week will begin Aug. 26, when the ninth annual World Congress convenes. The World Congress will run for 3½ days. World Expo will open Aug. 27 and continue through Aug. 30.

World Congress kickoff

Opening-night speakers

Keith E. Crain, center, Automotive News publisher and editorial director, visits with first-night speakers at the Automotive News World Congress. Philip Caldwell, left, Ford Motor Co. chairman, delivered the keynote address. Following him on the program was Edmund M. Carpenter, senior vice president, group executive — Automotive and Electrical Products, ITT Corp.

Car-truck averaging OK'd for diesel rule

By Helen Kahn
Washington Bureau Chief

WASHINGTON. — Makers of light-duty diesel cars and diesel light trucks will be able to average diesel particulate emissions starting with 1985 models.

EPA estimates that its final averaging rule — part of the Reagan Administration's efforts to ease regulatory burdens and to give manufacturers greater flexibility — could save between $50 and $111 million a year.

EPA's cost analysis assumes that by 1987, light-duty diesels will account for about 10.6 percent of total sales, 8 percent of car sales and 20 percent of light-truck sales. EPA sees average sales of both classes at about 1.3 million units for 1985-87.

But EPA has yet to decide the real level of the particulate standard and exactly what year it will take effect.

If there is a two-year delay as EPA proposed last December, — mostly to give makers of light duty diesels time to develop trap oxidizers or other control devices — then the effective date of the averaging rule — now set for '85 — will also be delayed.

This rule, like all other final rules, can be challenged within 60 days to the U. S. Court of Appeals for the District of Columbia.

This averaging proposal was one of the promises made in April, 1981, by the Reagan Administration to aid the auto industry. The specific proposal emerged in December, 1981, and

Continued on Page 8, Col. 1

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breaking news

Early-1984 debut seen for GM C-cars

MILFORD, Mich.—General Motors' new C-cars may be heading for an early 1984 introduction. Lloyd Reuss, Buick general manager, told magazine writers that a preview for the C-cars is tentatively set for late November or early December. Joseph J. Sanchez, Oldsmobile general manager, said, "The C-cars are in an extensive quality verification program." The C-cars are the front-wheel-drive Oldsmobile 98, Buick Electra and Cadillac DeVille.

Ford to pay a dividend

DEARBORN. — Ford Motor Co. will pay a 30-cent-per-share dividend on common stock for the third quarter of 1983—its first dividend in seven quarters. Chairman Philip Caldwell said the dividend reflects directors' confidence the sales upturn will continue. He credited the success of the company's new products and cost-cutting for the payment.

New GMAD plant yields bumper crop

ST. LOUIS. — The new $500 million General Motors Assembly Division plant in Wentzville, Mo., has yet to turn out a front-drive Olds 98 or Buick Electra and no date has been set for Job 1. But GM has realized a return on its investment. It sold wheat from the five farms on its 569-acre spread for a yield of $14,000.

The last question in bailout package

What about Chrysler warrants?

By Geoff Sundstrom
Washington Reporter

WASHINGTON. — Chrysler Corp. apparently is interested in buying back the warrants for 14.4 million shares of stock it issued to the U. S. government as part of its bailout package, and the government has expressed an interest in selling them — but not necessarily to Chrysler.

The issue of what to do with the warrants became the last question mark left in the Chrysler bailout package after Chairman Lee A. Iacocca announced to a gathering of high-level politicos and businessmen here last week that Chrysler's government-guaranteed loans will be paid off by September. The payoff will be made from cash reserves.

Treasury Secretary Donald Regan — also a member of the Chrysler Loan Guarantee Board — said the government will not hand Chrysler back its warrants, potentially worth more than $250 million.

The Loan Board will, however, resolve the question "expeditiously," to head off stock-market uncertainty, he said.

The Loan Board would rather sell the warrants than have Congress appropriate the $187 million or so that it would take to exercise them. The government would then have to sell the stock. Such a move would mark the first time the government would enter the stock market.

• The Loan Board's decision is expected within weeks. It could decide to sell the warrants over a period of time.

Putting pressure on the Loan Board, Senator John H. Chafee, Rhode Island Republican, last week said he will introduce legislation to cut the Department of Treasury appropriation $250 million unless the government takes steps to make a profit on its warrants.

The appropriation bill is ex-

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